

The Effect Of The Use Of Mental Training Exercises In The Development Of Cognitive Dynamic Sense Of The Effectiveness Of Free Swimming For Students Of The First Stage

Laith Kaleel Gasim¹, Mohammed Naser Kamil², Maha Wadwad Kamal³

^{1,2,3}University of Diyala - Faculty of Physical Education and Sports Sciences

mailto:maha.wadood@uodiyala.edu.iq

Abstract: Freestyle swimming activities differ from other sports in their physical and mental requirements for what they need in distinct preparation during the learning of the skill from a mechanical point of view and the requirements for mental and kinetic compatibility as well as the stages that these movements go through in terms of their sequence and the difficulty of the growing movement in them. In the various stages of learning the skill, which is described as a closed skill. Freestyle swimming skills are among the closed mathematical skills that require training and mental preparation with infinite accuracy, indicating that "the complete mental perception of the skill as it leads the athlete to success with his movements and gives him the ability to discover the new technique and the ability to match the movement, since like people who have a sense of movement are able to accomplish skills." Others cannot accomplish it (Osama Kamel 2: 57).

1. INTRODUCTION

"Imagination immediately before the performance is a means of moving from abstract thinking to coexistence for performance through different senses and feelings" and both (Osama and Allawi) believe that the more the student uses a greater number of senses during the exercise of mental imagination, the more he is able to identify the more connected sense with skillful performance "(Saeed Jalal and Muhammad Allawi 3: 87).

(Jalal and Allawi) stresses that "the active mental perception of performing certain skills results in muscle activity that may be limited, but its benefit is evident in strengthening the nerve pathways for the nerve signals sent in the nervous system to these working muscles." "The movement perception works to support the nerve pathways. The student, through the mental image, must flow in one direction, and in order for the student to obtain the maximum force in a specific direction, he must narrow his focus, as the broad focus of attention will lead to the concentration of the necessary force that he needs at the moment of launch or implementation." (Saeed Jalal and Muhammad Allawi 7: 87) .

And since the mental preparation of the athlete is one of the important pillars on which the training process is based as well as the rest of the other training elements, from here the importance of research is highlighted with the aim of uncovering the effect of the mental training method associated with the skill training with the development of some variables perception of movement, which have a direct link to the performance of most movement skills Sports in free swimming, which in turn requires a sense of time and distance, so this study decided to try the Misomo program, which aims at mental training through skill preparation and the extent of its impact on the development of perception and sensory movement on students of the first stage in the subject of free swimming

(3: 167), As for the research problem, it is that the technique is the ideal form of perception of muscular sense, it arises from scientific information, theoretical and field thinking, and then field experience, and that experienced athletes are able to limit the elements of difference using mental perception and anticipation of perception of the sense of movement.

2. RESEARCH METHODOLOGY:

The experimental method was used due to its suitability to the nature of this study, using the equivalent groups method by means of pre- and post-testing.

Research Sample:

The research sample was chosen randomly from first-grade students in the College of Physical Education and Sports Sciences at the University of Diyala, who numbered (28) students divided into two groups, and the two divisions were chosen. (C, D) randomly from a total of six people, whose number is (123) students. Thus, the percentage of the research sample was (22.7%) of the total community, one of them experimental and the other control.

The control group learned the basic skills of the freestyle swimming mat in the traditional way (known in the college), while the second group introduced the study variable to teach and improve the level of performance by using the mental training associated with the skill training.

Research Tools:

Anthropometric tests:

- Aristameter to measure the length to the nearest centimeter.
- A medical scale to measure weight, rounded to the nearest half a kilogram.
- Dynamometer device for measuring strength to sense muscle tension (a sense of estimating muscle strength) attached.
- Stopwatch to measure the feeling of estimating time.
- Skill level measurement: for basic movements on a freestyle swimming mat by the jury, where the skill level of the research sample was evaluated using international arbitration law.

Mental Training Program:

The researchers used the Misomo program (5: 52-53). This program aims to study the effect of mental training associated with skill training on the development of some perceptual-motor variables (sense of time, sense of power) and the extent to which the level of skill performance of students of the College of Physical Education and Sports Science improves on basic movements. For a free-swimming mat by focusing on the kinetic stages (parts) of implementing the kinetic skill on them, as the program continued for a period of (12 weeks) at a rate of one educational unit per week, noting that the unit time is (90) minutes, and as prescribed in the central curriculum for Faculties of Physical Education and Sports Sciences The mental training program contains three dimensions:

- Restore the motor skill mentally without partition.
- Mental re-skill, with an emphasis on breathing associated with skillful performance.
- Mentally restoring the motor skill, with a focus on muscle contractions as if they were actually performing, then mental training followed by focusing on retrieving the parts of the motor skill mentally linked and connected with the same timing of (5-8) minutes.

Equivalence of the search sample:

For the purpose of finding parity between the two groups of research in some of the study variables that may be related to the results of the study and these variables are: age, height, weight, sense of time factor estimation, and sense of muscle strength estimate (sense of muscle tension). Table (1) shows that:

Table (1) shows the homogeneity of study variables for the experimental and control group					
Variables	Experimental group		Control group		The calculated value (T)
	A	STD±	A	STD±	
Age (Year)	20.1	0.75	19.8	0.6	0.578
Length(cm)	169.85	7.32	168.65	6.85	0.622
Weight (kg)	68.71	5.53	69.31	6.71	0.358
Feeling of an estimate of time (sec)	9.62	0.98	9.90	1.02	1.02
A sense of power	39.13	3.93	38.60	3.21	0.543

* Tabular (t) value (2.56) at a level of significance 0.05 and degree of freedom (2-28)

It is clear from Table (1) that there are no statistically significant differences between the experimental group and the control group in the study variables, due to the emergence of (T) values calculated between the two research groups and for all variables less than their tabular value, which indicates the equivalence of the two research groups in the study variables.

3. PROGRAM IMPLEMENTATION:

The mental training program was applied to the experimental group accompanying the skill training for a period of (12 weeks) at the rate of one educational unit per week, where the experimental group received during the educational process mental counseling and directions and included lectures on how to learn and apply the mental training mechanism in learning and improving the level of skill performance, Where the student visualizes the accompanying motor performance, events and all dimensions, and exercises self-control, focus attention, isolation of thinking, and good training to relax while retrieving the technical aspects, taking into account the student's ability to learn and improve the level of performance through accompanying mental training, provided that he is able to understand the frame of reference The general skill is more than its details, if the main condition is to improve the level of performance to reach the overall perception of performance with the necessity of training in the same conditions surrounding the training, including tools and devices, to complete all dimensions in the movement perception.

When recovering, take into account the focus on correct performance, with an emphasis on the breathing associated with the performance.

This is followed by mentally recovering the skill with a focus on muscle contractions as if they were actually performing, then counting that focus on the style of performing the skill and the technical aspects that it includes, taking into account the speed, movement rhythm and mental training at the same speed and time factor, as the performance is visualized without focusing on the required speed It does not contribute to the creation of self-controlled features.

While the control group used skill training only and in the usual (traditional) way in the college, at the same rate, period of time, and the same place, under the supervision of researchers, and there was no difference between the two groups except in the part related to the actual training accompanying the skill training.

Post- test:

The post-test was conducted for the control and experimental group to obtain the scores that express the extent of the development of some of the perceptual-motor variables (the sense of estimating the time factor and the sense of muscle tension) on the basic movements of the simplicity of free swimming and its effect on improving the level of skill performance of college students and with the same pre-test conditions.

Statistical means:

The researchers used the spss to extract the results:

Presentation and discussion of results:

Presentation results:

Table (2) shows the differences between the pre and post- test for the control group

Variables	Pre-test		Post-test		The calculated value (T)
	A	STD±	A	STD±	
Feeling of an estimate of time (sec)	9.52	0.97	8.61	0.54	4.064
Feeling of muscle strength (Newton)	40.9	2.28	37.6	1.81	1,66
Skill Performance (Degree)	3,01	2,32	5,54	5,413 1,75	

* Tabular (t) value 2.056 at a level of significance (0.05) and degree of freedom (2-28)

Table (3) shows the differences between the pre and post- test for the experimental group

Variables	Pre-test		Post-test		The calculated value (T)
	A	STD±	A	STD±	
Feeling of an estimate of time (sec)	9.8	1.02	9.32	0.94	2.98
Feeling of muscle strength (Newton)	41.17	2.93	38.14	1.18	3.3
Skillful performance of free swimming	94.2	1.891	7.54	2.431	8.274

* Tabular (t) value below the level of significance (0.05) and the degree of freedom (2-28) = 2.56

Table (4) shows the differences between the experimental group and the control group for the research variables

Variables	Pre-test		Post-test		The calculated value (T)
	A	STD±	A	STD±	
Feeling of an estimate of time (sec)	8.61	0.65	9.13	0.94	3.023
Feeling of muscle strength (Newton)	38.6	1.97	39.16	1.19	2.67
Skillful performance of free swimming	5.52	1.651	7.56	2.46	4.817

* Tabular (t) value below the level of significance (0.05) and the degree of freedom (2-28) = 2.56

4. DISCUSSING THE RESULTS:

It is evident from Table (2,3) that there will be a statistically significant difference between the pre-test and the post-test for both the control and experimental groups in the results of the sense of the estimation of the time factor. The same does not require dealing with a sense of an appreciation of power in all activities, which makes the sense of time estimation factor necessary during daily life and a requirement more than a sense of power.

The experimental group was distinguished from the control in the sense results of estimating the time factor. The results of this study support the importance of both the skill training and the mental training associated with the skill training in developing the sense of estimating the time factor. This is consistent with what was indicated by Robert Niedeffe. Good athletes, while training to mentally perform skills (mentally) in any game that requires a certain time, are more accurate in estimating the time spent on the motor skill, that is, they are closer to the real time of skill performance "(5: 86).

Clark asserts that, "The degree of mastery of motor skills is linked to mental competence and skill training together" (92: 9).

It is evident from the presentation of the results and their analysis of the progress of the performance of the experimental group on the control, meaning that the mental training program gave a positive effect on the level of the students 'skill performance on the basic skills of free swimming due to the fact that the free swimming movements need special mental abilities in addition to the motor abilities, as the mental training It allows analyzing the used muscle groups and analyzing the parts that make up the motor skill, as coordination is made between the nervous and muscular systems, which leads to the best results.

The distinction of the experimental group from the control in the previous variables is due to the effect of regularity in the application of the mental training program accompanying the skill training, and this is consistent with what Robert Niedfer indicated, that "the time it takes for the athlete to mentally perform the skill within real time is an important and essential part of the assessment The level of achievement is high and that mental visualization increases control over timing and muscle work at the right time and in the correct chain during performance "(5: 145).

Table (4) also shows the existence of a statistically significant difference between the post-test of the control and experimental groups in the sense of estimating muscle strength in favor of the experimental group, and this is consistent with what Osama Kamel, Belkin, Hall, and Karpen referred to in terms of "performing this skill." (2: 112)

The state of mental and physical interconnectedness and the concentration of attention lead to a state of control over excessive muscle tension, especially the tension of the muscles opposing the implementation of the motor skill, and all the senses contribute to the motor act and that the motor structure of the person is linked to the feeling of the muscle. Maus recalls, "The sense of movement clearly tells us about the position and shape of the movements of our organs and about the stretching processes that take place in the muscles when performing a movement" (13: 201).

Also, focusing attention on a specific aspect of the learned motor skill allows the player to analyze the working muscle groups and to analyze the motor units that make up the motor skill. It will lead to the concentration of the necessary strength that the student needs at the moment of initiation and implementation "(5: 97).

5. CONCLUSION:

That mental training has a direct impact on the level of skillful performance of free swimming, and mental training is of great importance in developing the variables perception, the kinesthetic by estimating the time factor, and the sense of muscle strength, and that the Missimo program has an effective effect in the development of perception of movement in the free-swimming game.

The researchers recommend the importance of using the mental training accompanying the skill training before performing the motor skills in free swimming because of its importance in the development of the variables of perception, the sense of movement, and the necessity of using the mental training accompanying the skill training before the skill performance in the free swimming movements in light of the so-called closed movements because of its Importance in raising the level of skill performance and advancing it.

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